THE NEW TIME SYSTEM

ONE THING THAT MAY COME WITH THE TWENTIETH CENTURY.

A Plan That Would Simplify Matters Greatly—Need of a Universal Day and Prime Meridian—Some Early Methods—Cocoanuts Clocks—Timing by Water.

The new century will bring about many changes, but perhaps none of such everyday importance as the proposed new method of timekeeping. One of the most practical results will be that noon at Greenwich will be 12 o'clock all over the world. At present each day is spread over forty-eight (and in some instances fifty-five) hours in different places. With the new system it will have it beginning and end within twenty-four hours all over the globe. The hours on our watches and clocks, too, will run from one to twenty-four. It would seem odd for a while to order theatre carriages at half-past twenty-two in place of half-past ten.

The waggish reply "A quarter-past thirteen" made by the policeman in the "Bab Ballads" will become the correct way of indicating "a quarter past one." But, after all, this will only be an enlargement of what actually begun as far back as 1886, when the time for all "through" trains on the Canadian Pacific Railroad was first reckoned in hours running from one to twenty-four.

WILL PREVENT COMPLICATIONS.

The fixing of a universal prime meridian will do away with the ambiguity which, as railways and telegraphs become multiplied lead to such confusing complications in social and commercial affairs, to errors in chronology, to litigation in connection with succession to property, insurance matters, contracts, etc. The present variations of time are readily demonstrated by selecting points in four regions about ninety degrees apart, for instance, Japan, Arabia, Newfoundland and Alaska. On Sunday at midnight in Japan it is noon in Newfoundland, and on two distinct days, viz., Sunday and Monday. To explain this apparently contradictory statement note that Arabia being west of Japan, the time there (at midnight in Japan) would be 6 p. m. Sunday, while in Alaska, being east of Japan, it would be 6 a. m. on Monday. At 6 p. m. on Sunday in Arabia it must be Sunday noon in Newfoundland, and at 6 a. m. on Monday in Alaska it must be Monday noon ninety degrees further east (i. e., in Newfoundland, also). Thus it will be seen by tracing time both east and west from a given point to its antipodes, the clock on the one hand become twelve hours slower, and on the other hand twelve hours faster. And, therefore, it follows, as already stated, that when it is midnight on Sunday in Japan, at precisely that same moment it is noon at Newfoundland on two distinct days, namely, Sunday and Monday.

PERPLEXING PROBLEMS.

It is only another application of this complicated method of time reckoning which gave rise to the following incident: A telegraphic message, dated "Simla, 1.55 a. m., Wednesday," was received in London at 11.47 p. m. on Tuesday. The clerk very naturally exclaimed: "Why, this message was sent off to-morrow." The same perplexing problem has been presented by imagining a car suspended from the sun, and in the car a man who inquires the day and time as a town rolls eastward beneath him. The answer, "12 o'clock noon, Monday," is given. Presently another town comes under the car. The man asks the same question and receives the same reply, for, of course, it must always be noon, the town being immediately beneath the sun. Now comes the question, "When will the man in the car first receive the answer '12 o'clock noon, Tuesday?'" The solution is found in the fact that in traveling across the Pacific from west to east one day has to be repeated before reaching the American coast. If, for example, the correction be made on Saturday, July 4, there will be two Saturdays in the same week and two days of the month dated July 4.

It is this variation of time, too, which forms the pivotal point of the story, "Around the World in Eighty Days," in which the traveler, who wagered at his London club that he could go around the world and be back at the club in eighty days, so nearly lost his bet. He had forgotten this difference of a day, and thought that he had completed his journey twenty-four hours too late.

ORDER OUT OF CHAOS.

Does any one ask, "What is going to straighten this out and bring about order out of the existing chaos?" The answer is by simply putting into operation the results of the deliberations of the international meridian conference, which met in Washington at the invitation of President Arthur in October, 1884, for the express purpose of establishing a prime meridian and a universal day. This matter was freely discussed at the time by navigators and astronomers, and the hope was everywhere expressed that the change would be effected on January 1, 1901. At any rate it does not seem possible that the adoption of the new system can be deferred very long after the commencement of the twentieth century.

CRUDE TIMEKEEPERS.

Even with our present defective system of time-reckoning, consider how many advantages we enjoy over the ancients. In the sixth century before Christ the sun dial, which is supposed to have been invented by the Chaldeans, was introduced into Greece, probably by the Babylonians. It was only a pillar or staff, and was not graduated so as to indicate the passage of any particular fraction of a day. When it cast a shadow six feet long, the hour for bathing had arrived, and supper was eaten when the shadow became twelve feet long. Simple as it was, it seemed to satisfy the needs of that primitive race. It could not, of course, be used indoors, nor was it of any use on a cloudy day. It was merely a crude timekeeper, and could not even be used for checking off certain brief periods. To accomplish this the "Clepsydra," or water clock, was invented, and Greece seems to have been the land of its origin. Fifty years before the Christian era, a clepsydra was erected in the "Tower of the Winds" in the market place at Athens. A running stream kept the water in an upper vessel at a constant level. The discharge raised a float in a lower vessel. On this float was an indicator or hand, which, as it rose, traveled over an adjacent scale and so gave a time indication, visible at a distance. This was the public timepiece of Athens, and its indications could always be compared with those of the sun dial on the frieze of the octagonal building by which it was enclosed. At the top of the roof was a weather vane in the form of a Triton, who pointed with his trident toward the prevailing wind. Thus the double purpose of a naval observatory and a weather bureau was accomplished.

COCOANUT CLOCKS.

A similar device has been found in use among the Malay boatmen, where a perforated cocoanut shell floating in a bucket of water permits the fluid to enter gradually. When the shell becomes full an hour is recorded. In northern India a copper bowl is used, and at the moment it sinks the attendant strikes the hour upon the metal. In China the same idea occurs, but with this difference, the vessel is filled and drop by drop the water is allowed to flow out.

Coming down to our own day, what else is the sandglass, which a few years ago was in common use in kitchens to show the cook when the eggs were boiled? And is not the modern clock based on the same principles? In the clepsydra the water is the motor; the perforation, the escapement; while the sinking of the shell or bowl is the index of the completion of a definite period.

TIMING SPEECHES BY WATER.

A curious use of the clepsydra in Greece was for limiting the length of speeches in the courts. In very important cases an additional amount of time was allowed, and each side was permitted as much as fifty gallons of water, necessitating the use of unusually large amphorae. When a speaker was interrupted, to save the time being charged against him he would order the official to "stop the water."

The system of timekeeping in Rome divided the day and night into four watches, which were determined roughly by observing the courses of the sun and stars. Noon was publicly announced by an official who from the senate watched for the appearance of the sun at a certain point.

AMONG THE INDIANS.

Among the Montagnais Indians a crude form of sun dial is used in hunting to let the squaws, who follow their lords and masters, know whether they may "take it easy" or "hurry up," for they might fare badly if they lagged behind when their husbands were ready for supper. And so the men when hunting erect in the snow a stick at some well-known place and draw the exact line of the stick's shadow in the snow before going on. When the women arrive with their pots and other cooking utensils they note the new line of the shadow, and by observing the angle which it forms with the line already drawn in the snow they can tell how far ahead their husbands are.

With all Indian tribes the season of the year is indicated by observing nature's own processes and not by months. Thus the changing of the moon, the budding of the trees, the falling of the leaves, the coming and going of the birds, all are symbolical of the various seasons. Even among the farmers in Virginia, not so very long ago the proper time for planting corn was "when the hickory leaves became as large as a squirrel's ear." The Indians have no clocks or mechanical devices for telling the time, but it is known that in Zuni and Moki the Pueblo Indians tell the arrival of noon by setting up stones and noticing when the shadows are shortest. It is not uncommon on farms even nowadays to have the "hands" say that when they can "stand on their heads" it is time to go to dinner.

A CUMBERSOME METHOD.

The old Japanese method of timekeeping was very cumbersome. The clock was in charge of an attendant, whose duty it was to change the hands so as to keep pace with the constantly changing length of the days. It was all right so long as the man attended to his duties.

Reverting once more to ancient times, it is well to bear in mind that had it not been for Julius Caesar, who established certain regulations which were formulated as the Julian calendar, and Pope Gregory XIII., who in the sixteenth century recognized several errors and defects in time reckoning and succeeded in devising his now well-known methods for correcting them, we might still be hedged about with such confusing conditions as would make it hard for a man to know whether he should get up or go to bed.—Washington Star.

HUMMIN' A TUNE.

Don't keer for the words er the rhymin',
But my heart is ez happy ez June
When I plod along, puttin' my time in,
An' hummin' an' ol'-fashioned tune.
It's queer how the sound seems to lighten
The trouble the weighs on yore soul—
Why, the whole of creation will brighten
When the bass starts to tremble an' roll!

With some folks, ov course, the repeatin'
Of words brings the feelin' more near,
But singin' by sound's not a-cheatin'
Yore breast of a smile er a tear;
You imagin' the world's growin' better,
You feel like you'd found a new friend,
An' without yore contrivin' a letter
You sing the ol' song to the end.

'N I reckon a man that must labor
Ain't no worse fer his hummin' a tune,
Ain't plottin' to humble his naber
Afore the next change of the moon;
An' to leave out the rhymes is ez clever
Ez to whistle the ol' "Mockin' Bird,"
Fer them opery singers don't never
Pernounce jes' the least little word!
—Charles W. Stevenson.

PITH AND POINT.

Teacher—"What is memory?" Boy—"The thing what you forget with!"—Moonshine.

Sillicus—"When it comes to depravity, young Rounders is hard to beat." Cynicus—"A bad egg, eh?"

"Well, my boy, any college debts?" "Nothing, sir, but what with diligence, economy and stern self-denial you will not be able to pay."—Life.

"I gave that blind beggar a dime, and he called me a 'beautiful lady.'" "Well, handsome is as handsome does."—Detroit Free Press.

"And was my present a surprise to your sister, Johnny?" "You bet! She said she never suspected you'd give her anything so cheap."—Tit-Bits.

A man shall seek with all his might
For work which fills him with delight;
So, too, he must, with heart not rash
Love work which fills his purse with cash.
—Detroit Free Press.

"What kind of a man is Doogles?" "He's the kind that will do you a small favor so he can come around next day and ask a big favor."—Chicago Record.

"Do you think the new clergyman can pull your church together again?" "Oh, yes; that is, if we get him started before the golf-playing section gets hold of him."—Puck.

"No mother-in-law on earth could be
As good as mine," he said.
His friend asked: "Really? Why?" said he;
"Well, just because she's dead."
—Philadelphia Record.

"How did you come to be a professional beggar?" "I ain't no professional beggar. I'm employed to git up statistics on how many heartless people they is in this town."—Chicago Record.

Nell (excitedly)—"Here's a telegram from Jack Punter, of the 'varsity team." Belle—"What's it say?" Nell—"It says: 'Nose broken. How do you prefer it set—Greek or Roman?'"—Philadelphia Record.

"Do you devote much thought to your poems?" asked the eminent explorer. "Bless your soul, no," said the eminent versifier. "I have reached a height where I can afford to let that part of the work fall on the reader."—Indianapolis Press.

Teck—"What's the matter, Hen, you look tired?" Peck—"Yes, I've been a victim of dyspepsia for the last few days." Teck—"Why, you've often told me you weren't subject to it at all." Peck—"I'm not, but my wife is."—Philadelphia Press.

The Heart as a Bequest.

It was a common thing in olden days for a testator to dispose of his heart by will. Edward I. left directions for the burial of his heart in the Holy Land; the famous Earl of Millent and Leicester, who flourished in the early part of the twelfth century, bequeathed his heart to a hospital at Brockley, where he desired it to be preserved in salt; a sister-in-law of Henry III., who died at Berkhampstead in 1239, ordered her heart to be sent in a silver cup to the Abbot of Tewkesbury, who was enjoined to bury it before the high altar. In modern times such testamentary directions have been extremely rare. The late Marquis of Bute, whose relatives have gone to Palestine to fulfill his desire for the interment of his heart on the Mount of Olives, is the only testator in recent years who has expressed such a wish.—London Globe.

Read With Your Whole Mind.

A worthy book represents the author's best thought, and should be read by us with no less effort than was required by him to write it. We should abstract to the extent that we become oblivious to everything about us, and live with whole mind and heart in the author we read. An interesting story of abstraction is told of the great Italian poet Dante. He attended a circus, and while waiting for the procession his eyes fell upon a book. He picked it up and began to read, and became so much absorbed that the procession passed without his knowing it.—New York Education.

Doves in a Chimney.

An Augusta (Me.) financier has a large old-fashioned chimney in his house, subdivided into several flues, and a great many doves have formed the habit of making their home therein. It is unusual for doves to make chimneys their habitation, but this one is full of them at all seasons of the year. It would seem that the dust and smoke would prove too much for them, but only two or three have been known to perish, and those were the young birds.

It has been found that insanity appears earlier in Jews of both sexes than in non-Jews, at thirty-seven, as compared with forty-three years.

The letter X occurs only once in 1000 letters in the English language. In French it occurs five times as often.